



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,871	10/28/2003	Michele Fontana	Q78153	4114
23373 7590 07/19/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER DUNN, DARRIN D	
			ART UNIT 2121	PAPER NUMBER
			MAIL DATE 07/19/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/693,871

Applicant(s)

FONTANA ET AL.

Examiner

Darrin Dunn

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/28/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the communication filed on 10/28/2003.
2. Claims 1-4 have been presented for examination.

Claim Objections

3. Claim 2 is objected to because of the following informalities: Replace [an header] with [a header]. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 recites the limitation [the LCP and NCP protocols]. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2121

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholten et al. (Data Transport Applications Using GFP) in view of Dynarski et al. (USPN 6628671).

9. As per claim 1, Scholten et al. teaches a method for mapping layer-3 packets over Synchronous Digital Transport Networks (SDH/SONET) and/or Optical Transport Networks (OTN), said method comprising the steps of:

setting up SDH/SONET and /or OTN connections over respective networks – SONET/SDH physical layer network ([Data over SONET/SDH, ¶ 2 lines 1-4]) ;

inserting the layer-3 packets –IP/PPP ([IP over SONET/SDH ¶ 1, lines 1-5], [FIG 1-IP]) in the modified PPP packet;

adding a GFP header of a GFP mapping layer to the modified PPP packet, to get GFP packets – ([IP over SONET/SDH, ¶ 11] e.g., mapping IP/PPP packets into GFP frames), [FIG 4]);

setting a new value of UPI (User Payload Identifier) – UPI ([FIG 3], [FIG 4] e.g., examiner interprets mapping IP/PPP into payload area of GFP frames requires a frame mapped PPP identifier to identify a payload type within the payload header) field in the GFP header ;

transporting GFP packets so obtained over the SDH/SONET and/or OTN networks – encapsulated IP/PPP for transport over SONET/SDH ([Data over SONET/SDH, ¶ 2 lines 1-5]).

However, Scholten et al. does not teach setting up a modified PPP protocol of PPP packets, without the LCP and NCP protocols for negotiation. Dynarski et al. teaches the re-

Art Unit: 2121

negotiation of PPP protocols (LCP and NCP) is not needed subsequent to a PPP session becoming dormant ([COL 2 lines 53-57]).

Therefore, at the time the invention was made one of ordinary skill in the art would have motivation to obviate the need to re-negotiate both LCP and NCP protocols when a session has already been established. Since PPP sessions are applicable across a plurality of networks, the instant reference is not limited to any one particular network. Given that Scholten et al. teaches the mapping of IP/PPP in the context of SONET/SDH networks, it would have been advantageous to one of ordinary skill in the art to avoid PPP protocol re-negotiation when utilizing an established PPP session.

10. As per claim 2, Scholten et al., as modified, teaches the method according to claim 1, wherein said modified PPP protocol of PPP packets comprises:

a PPP header –PPP/HDLC frame ([FIG 4]), field Protocol –PPP type ([FIG 4]), the value of which identifies the type of layer-3 payload – PPP ([FIG 4]);

the said layer-3 payload, comprising in turn a header and a payload part – PPP information ([FIG 4]);

a PPP tail, field FCS – FCS ([FIG 4]) used for error checking of the PPP packet.

11. As per claim 3, Scholten et al., as modified, teaches the method according to claim 1, wherein said layer-3 packets are MPLS or IP – IP/PPP packets ([IP over SONET/SDH, ¶ 11] e.g., mapping IP/PPP packets into GFP frames) or IPX or Ipv6.

12. As per claim 4, Scholten et al., as modified, teaches the method of claim 1, wherein said GFP header comprises the following fields:

PLI: payload length indication –([FIG 4]);

Art Unit: 2121

HEC: Header Error Check, with the following possibilities:

cHEC: core HEC, check on the Header field –([FIG 4]);

tHEC: type HEC, check on the Type field –([FIG 4]);

eHEC: extension HEC, check on the Extension header –([FIG 3]);

PTI: Payload Type identifier –([FIG 3]);

PFI: Payload FCS identifier – ([FIG 3]);

EXI: Extension Header identifier – ([FIG 3]);

UPI: User Payload identifier: the said new value of UPI – ([FIG 3])

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6105068 A – Method and Apparatus for Determining a Protocol Type
US 20020181510 – Selective examination of PPP packets for renegotiation of PPP
JP 2001333132 A - Re-arbitration of LCP and NCP

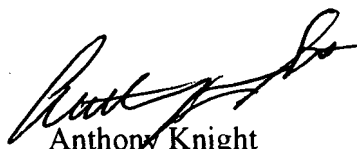
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darrin Dunn whose telephone number is (571) 270-1645. The examiner can normally be reached on EST:M-R(8:00-5:00) 9/5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2121

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD
07/10/2007



Anthony Knight
Supervisory Patent Examiner
Art Unit 2121